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MASSAGE BRUSH

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a massage brush, and particularly relates to a
5 massage brush with a tightly engaged massage structure to prevent the massage
structure from being removed from the massage brush.

2. Background of the Invention

Referring to FIG. 1, a conventional massage brush 1a includes a massage
structure 11a, a circle pad 12a engaged with the massage structure 11a and an exterior
10 cover 13a clamping the pad ring 12a. The massage structure 11a has a U-shaped
fastening portion 111a made integrally in one piece and clipping a flange portion 121a
of the circle pad 12a for the circle pad 12a to be received therein. The circle pad 12a
has a circular recess 122a formed in a bottom thereof, and the exterior cover 13a has a
circular protrusion 131a arranged integrally in one piece thereon and relating to the
15 circular recess 122a for the circular protrusion 131a engaging in the circular recess
122a. The conventional massage brush 1a further includes a back paste 14a filled
between the circular protrusion 131a and the circular recess 122a for a tight
engagement therebetween.

However, the U-shaped fastening portion 111a of the conventional massage
20 brush 1a becomes fatigued after long-term use and there is no retaining device or
structure securing the U-shaped fastening portion 111a, so the U-shaped fastening
portion 111a will be removed easily and the conventional massage brush 1a will
become useless.

The conventional massage brush 1a connects the circular protrusion 131a in the circular recess 122a via the back paste 14a, and accordingly match problems must be considered between the circle pad 12a and the back paste 14a, or between the exterior cover 13a and the back paste 14a (which has a material interaction therebetween).

5 Usually, the circle pad 12a and the exterior cover 13a are made of PMMA (polymethylmethacrylate) materials. The PMMA materials are usually more expensive than other polymers, such as PP (polypropylene), PVC (polyvinyl chloride), and the like. But these other materials cannot be substituted for the PMMA because of the back paste 14a and match problems there between, and that keeps the cost high.

10 In addition, the back paste 14a filled therein may be improper and overfilled, and the PMMA is a transparent material, so that the overfilled back paste 14a will be seen and negatively affect its attractiveness to purchasers.

Furthermore, the back paste 14a filled therein will connect the circle pad 12a to the exterior cover 13a so tightly that changing the massage structure 11a of the 15 conventional massage brush 1a is impossible. When the massage structure 11a wears out, the conventional massage brush 1a is useless. If the circle pad 12a or the exterior cover 13a breaks from incorrect use, the first conventional massage brush 1a is also useless.

Hence, an improvement over the prior art is required to overcome the 20 disadvantages thereof.

SUMMARY OF INVENTION

The primary object of the invention is therefore to specify a tightly engaged massage brush to prevent a massage structure thereof from being removed therefrom.

The secondary object of the invention is therefore to specify an easily assembled

and detached massage brush, the elements of which can be changed.

The third object of the invention is therefore to specify a massage brush that can be made of other polymer materials to reduce costs.

The fourth object of the invention is therefore to specify a massage brush that
5 omits the back paste, so that design and material match problems need not be considered, and the manufacturing efficiency thereof is improved.

The fifth object of the invention is therefore to specify a massage brush with an appearance improved by omitting the back paste, thereby increasing the attractiveness thereof to purchasers.

10 According to the invention, this object is achieved by a massage brush including a massage structure, an orientation ring engaging tightly with the massage structure, a circular pad received in the massage structure, and an exterior cover retained against the circular pad and the orientation ring. The circular pad includes a flange disposed therearound and clamped in the massage structure, and an L-shaped restriction portion extending downwardly from a bottom thereof to support the orientation ring thereon. The orientation ring engages with the massage structure, the L-shaped restriction portion, and the exterior cover simultaneously for tightly clamping the massage structure therewith.

20 To provide a further understanding of the invention, the following detailed description illustrates embodiments and examples of the invention. Examples of the more important features of the invention thus have been summarized rather broadly in order that the detailed description thereof that follows may be better understood, and in order that the contributions to the art may be appreciated. There are, of course, additional features of the invention that will be described hereinafter and which will

form the subject of the claims appended hereto.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other features, aspects, and advantages of the present invention will become better understood with regard to the following description, appended claims, 5 and accompanying drawings, where:

FIG. 1 is a cross-sectional profile of a conventional massage brush;

FIG. 2 is an exploded cross-sectional profile of a first embodiment of a massage brush according to the present invention;

FIG. 3 is an assembled cross-sectional profile of the first embodiment of the 10 massage brush according to the present invention;

FIG. 4 is a perspective view of the first embodiment of the massage brush according to the present invention;

FIG. 5 is a perspective view of a second embodiment of the massage brush according to the present invention; and

15 FIG. 6 is a perspective view of a third embodiment of the massage brush according to the present invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

With respect to FIG. 2 and FIG. 4, a first embodiment of a massage brush 20 according to the present invention is described. The massage brush 2 includes a massage structure 21, an orientation ring 24 engaged tightly with the massage structure 21, a circular pad 22 received in the massage structure 21, and an exterior cover 23 retained against the circular pad 22 and the orientation ring 24. The massage

structure 21 has a U-shaped fastening portion 211 arranged circularly inwards and made integrally in one piece. The circular pad 22 includes a flange 221 disposed therearound and an L-shaped restriction portion 222 extends downwardly from a bottom of the circular pad 22, the flange 221 clamps in the U-shaped fastening portion 5 211 of the massage structure 21, the L-shaped restriction portion 222 is formed by drawing back a predetermined distance “d” from the flange 221 to receive the U-shaped fastening portion 211 and support the orientation ring 24 thereon. The exterior cover 23 further includes a step portion 231 arranged on an inner side thereof for retention against the L-shaped restriction portion 222. The exterior cover 23 is 10 retained against the massage structure 21, the orientation ring 24 and the L-shaped restriction portion 222 simultaneously to secure the massage structure 21 to the exterior cover 23.

Comparing with the conventional massage brush 1a, the U-shaped fastening portion 111a is clamped with the circle pad 12a and the exterior pad 13a. In the 15 present invention, the orientation ring 24 is tightly engaged with the U-shaped fastening portion 211. The flange 221 and the L-shaped restriction portion 222 of the circular pad 22 together provide a vertical clamping force in an upper-to-lower direction. The flange 221 of the circular pad 22 and the orientation ring 24 together provide a horizontal clamping force in a right-to-left direction. The massage 20 structure 21 is thus prevented from removing therefrom.

The orientation ring 24 has a clamping portion 241 circularly protruding from an outer circumstance thereof and a restriction surface 242 protruding from an inner top thereof to engage with the U-shaped fastening portion 211. The clamping portion 241 shrinks from a top to a bottom thereof, and includes a smooth surface for assembling

easily. The exterior cover 23 has a clamping groove 232 formed thereon and relating to the clamping portion 241 of the orientation ring 24, so that the orientation ring 24 engages with the exterior cover 23 tightly.

Furthermore, corresponding to the conventional massage brush 1a, the present invention omits the back paste 14a, so that design and material match problems due to the back paste 14a will never be considered. The orientation ring 24, the circular pad 22 and the exterior cover 23 will not be restricted by made of the PMMA, thus the process and manufacturing steps will be simplified. The orientation ring 24, the circular pad 22 and the exterior cover 23 may be made of PP (Polyp^{ro}pylene) or PVC (Polyvinyl Chloride) alternatively to reduce costs. The prevent invention avoids destroying the appearance thereof without the back paste 14a, and users' purchasing wills accordingly will be inspired.

The present invention provides the massage structure 21, the orientation ring 24, the circular pad 22 and the exterior cover 23 together assembled into the massage brush 2. The present invention omits the back paste 14a, which is used as a glue and is permanent, and provides a massage brush 2 that is easily assembled or detachable for changing elements thereof.

Referring to FIG. 2 and 4, the exterior cover 23 includes a long handle 233 for manipulating. With respect to FIG. 5, a second embodiment of the massage brush 2, the exterior cover 23 includes a pinch portion 234 extended from a top thereof. The pinch portion 234 has a curve body 2341 shaped ergonomically and a head 2342 connecting the curve body 2341, whereby the head 2342 is bigger than the curve body 2341. A user holds the curve body 2341 with the fingers and retains the head 2342 by the back of the hands.

In FIG. 6, in a third embodiment of the massage brush 2, the pinch portion 234 is disposed on an end of the top of the exterior cover 23, and the head 2342 has a retention member 2343 extending forward from an opposite end thereof. The user clamps the curve body 2341 with the fingers and retains the head 2342 and the 5 retention member 2343 by back of the hands.

The massage brush 2 includes the massage structure 21, the orientation ring 24 engaged tightly with the massage structure 21, the circular pad 22 received in the massage structure 21, and the exterior cover 23 retained against the circular pad 22 and the orientation ring 24. The flange 221 and the L-shaped restriction portion 222 of 10 the circular pad 22 together provide the vertical clamping force in the upper-to-lower direction, and the flange 221 of the circular pad 22 and the orientation ring 24 together provide the horizontal clamping force in the right-to-left direction, for preventing the massage structure 21 from being removed therefrom during use.

It should be apparent to those skilled in the art that the above description is only 15 illustrative of specific embodiments and examples of the invention. The invention should therefore cover various modifications and variations made to the herein-described structure and operations of the invention, provided they fall within the scope of the invention as defined in the following appended claims.